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Kia Silverbrook

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SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

LIANG, LEONARD S

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/803,078 | Applicant(s) SILVERBROOK, KIA | |
| | Examiner LEONARD S. LIANG | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2008 and 15 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 28-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 28-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8, 10-14, 16-20, and 23-26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwa et al (JP Pat 08267854) in view of Morgavi (US Pat 5558449) and Saito et al (US Pat 5731829).

Kashiwa et al discloses:

- {claim 1} A printing and display device (figure 1); a flat panel display unit for displaying images within an image viewing area of the flat panel display unit, the flat panel display unit being arranged to receive the images from an external computer device connected to an image input of the flat panel display unit figure (figure 1, reference 2; even though this is a laptop computer, there is inherently a CPU which can be considered to be external to the image input of the printing and display device. Furthermore, it is well known to one of ordinary skill in the art that an external computer device, like a keyboard or mouse, can always be connected to a portable computer); a printer (figure 2, reference 14; abstract)

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- {claim 3} the device configured to receive print data to be printed, and display data to be displayed, from a computer system, the printer and flat panel display being operationally integrated such that the printer is operable to print based on the received print data and/or display data (abstract)
- {claim 4} wherein the printing and display device includes a connection configured to allow releasable operative connection of the computer system to the printing and display device, for receiving the print data and the display data from the computer system (abstract; as broadly recited, connections are releasable)
- {claim 5} wherein the connection includes at least one socket for accepting at least one corresponding data cable (figure 5; see socket receiving data cable)
- {claim 8} further including a paper feed mechanism for feeding paper to the printhead for printing, the printhead being arranged to print onto the paper (figure 2, reference 15)
- {claim 10} wherein the paper feed mechanism is configured to accept a single sheet of paper at a time for printing (figure 2, reference 15)
- {claim 11} wherein the paper feed mechanism includes a paper separator for feeding a single sheet of paper to the printhead from a stack of sheets of paper (figure 4, reference 22)

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- {claim 17} device configured to enable printing of standard A4 or Letter sized sheets of paper (figure 2, reference 10)
- {claim 18} device configured such that paper to be printed is fed manually into a paper path that directs the paper from a region adjacent the upper edge of the flat panel display, past the printhead for printing, then out of the device adjacent a lower edge of the flat panel display (figure 2, reference 10)
- {claim 19} further including a curved paper guide disposed, when the device is in use, beneath the flat panel display, such that the paper that has been printed is urged horizontally as it exits the device (figure 2, reference 17)
- {claim 20} wherein the flat panel display is of the following type: LCD (abstract)
- {claim 23} wherein the printhead is configured to print photographic images (abstract; the term photographic is broadly interpreted; it is well known that any printer that prints images can print photographic images depending on the data input to the printer)
- {claim 24} wherein the printhead is configured to print image and text data (abstract; depending on the data sent to the printer)
- {claim 25} wherein the computer system is a personal computer (abstract)

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- {claim 26} a flat panel display for displaying images from a computer; and a printer, the printer including a printhead for printing onto the paper (figure 2)
- {claim 28} a data connection for receiving print data from a computer; a flat panel display for displaying images received from a computer; a printer, the printer including a printhead for printing onto paper on the basis of the print data; and a data connection hub configured to allow connection of at least one data-receiving device to the printing and display device, enabling the data-receiving device to receive data from the computer (abstract; figure 2)
- {claim 29} a flat panel display; and a printer, including a printhead for printing onto paper; the device being configured such that, during printing, the paper being printed passes between the flat panel display and the printhead, or passes behind the flat panel display and the printhead relative to a viewing position of the flat panel display (figure 2)
- {claim 30} a flat panel display; a printer, including a printhead for printing onto paper; a multi-sheet paper holder; a paper sheet separator configured to separate a single paper sheet from the paper in the paper holder for supply to the printhead (abstract; figure 2; paragraph 0012; paper tray)

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- {claim 31} the device including an interface, and being configured to receive, via the interface, input from a use indicative of a print command; send, from the printing and display device to the computer system, a print request; receive, from the computer system and in response to the print request, a document to be printed; and print the document (abstract)

Kashiwa et al differs from the claimed invention in that it does not explicitly disclose:

- {claim 1} the printer including at least two printheads, the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the print media; wherein the printer is arranged within the flat panel display unit so as to be contained within the image viewing area of the flat panel display unit, and the flat panel display unit has a stand for holding the flat panel display unit in an operative position, the stand including at least one receptacle configured to accept at least one replaceable ink cartridge for supplying ink to the printer
- {claim 2} wherein the viewable area has a dimension measured along a diagonal of the printing and display device which exceeds 40cm
- {claim 12} wherein the printer is a process color printer
- {claim 13} wherein the printer is an inkjet printer

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- {claim 14} wherein the printer has more than 5,000 inkjet nozzles
- {claim 16} wherein the flat panel display measures at least 14 inches on the diagonal

With respect to claims 2, 12-14, and 16, even though the art is explicitly silent with regard to the specifics of the printhead and dimensions of the display, one of ordinary skill in the art would recognize the above limitations to be standards that are commonly used in the industry. If the above limitations were not implied in the invention of Kashiwa et al, the disclosed printing and display functions would be severely hampered.

Morgavi discloses, with respect to claim 1, a simultaneous two-face printing machine comprising two printheads disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing on both sides of the print media (figure 1, reference 10, 11).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Morgavi into the invention of Kashiwa et al. The motivation for the skilled artisan in doing so is to gain the benefit of printing on two sides of a media.

Saito et al discloses, with respect to claim 1, that the printer is arranged within the flat panel display unit so as to be contained within the image viewing area of the flat panel display unit (figure 66A-B, reference 3200, 3213f); the flat panel display unit has a stand for holding the flat panel display unit in an operative position (figure 66A-B, reference 3214, 3213f), the stand including at

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least one receptacle configured to accept at least one replaceable ink cartridge for supplying ink to the printer (figure 1, reference 3202-3203).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Saito et al into the invention of Kashiwa et al so that the printer is arranged within the flat panel display unit. The motivation for the skilled artisan in doing so is to gain the benefit of saving space.

Claims 6-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwa et al (JP Pat 08267854) in view of Morgavi (US Pat 5558449) and Saito et al (US Pat 5731829), as applied to claim 1-5, 8, 10-14, 16-20, and 23-31 above, and further in view of Minemoto et al (US Pat 6188569).

Kashiwa et al, as modified, discloses:

- {claim 9} wherein the paper feed mechanism is configured to position the paper substantially parallel in at least one direction with respect to a plane defined by the flat panel display (figure 2, reference 15)

Kashiwa et al, as modified, differs from the claimed invention in that it does not disclose:

- {claim 6} wherein the connection includes a wireless receiver for receiving the print data and/or the display data
- {claim 7} wherein the connection is a Universal Synchronous Bus (USB) connection

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Minemoto et al discloses:

- {claim 6} wherein the connection includes a wireless receiver for receiving the print data and/or the display data (column 5, lines 10-31)
- {claim 7} wherein the connection is a Universal Synchronous Bus (USB) connection (column 9, lines 44-52)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Minemoto et al into the invention of modified Kashiwa et al. The motivation for the skilled artisan in doing so is to gain the benefit of providing efficient data transfer.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwa et al (JP Pat 08267854) in view of Morgavi (US Pat 5558449) and Saito et al (US Pat 5731829), as applied to claim 1-5, 8, 10-14, 16-20, and 23-31 above, and further in view Steinfield et al (US Pat 6508552).

Kashiwa et al, as modified, teaches all limitations of the claimed invention except for the following:

- {claim 15} wherein the printer is a page-width printer

Steinfeld et al discloses, with respect to claim 15, the equivalence between a carriage mounted printhead and a pagewidth print head (column 1, lines 56-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Steinfield et al into

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the invention of Kashiwa et al. The motivation for the skilled artisan in doing so is to gain the benefit of reducing vibration in the printhead.

Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwa et al (JP Pat 08267854) in view of Morgavi (US Pat 5558449) and Saito et al (US Pat 5731829), as applied to claim 1-5, 8, 10-14, 16-20, and 23-31 above, and further in view Rylander (US Pat 5602572).

Kashiwa et al, as modified, teaches all limitations of the claimed invention except for the following:

- {claim 21} wherein the printhead is configured to receive halftoned print data to be printed onto the print media
- {claim 22} further including a halftoning unit for generating halftoned image data and supplying it to the printhead for printing

Rylander discloses:

- {claim 21} wherein the printhead is configured to receive halftoned print data to be printed onto the print media (abstract)
- {claim 22} further including a halftoning unit for generating halftoned image data and supplying it to the printhead for printing (abstract)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Rylander into the invention of modified Kashiwa et al. The motivation for the skilled artisan in doing so is to gain the benefit of producing images that represent a greater range of shades.

Response to Arguments

Applicant's arguments with respect to claims 1-26 and 28-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Desormeaux (US Pat 6312124) discloses a solid and semi-flexible inkjet printing system.

Luciano et al (US PgPub20020146271) discloses a vertically mounted modular printer system.

Shimoda (US Pat 7116344) discloses a handy thermal head printer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD S. LIANG whose telephone number is (571)272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. S. L./
Examiner, Art Unit 2853
07/25/08

/STEPHEN D. MEIER/
Supervisory Patent Examiner, Art Unit 2853